

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) ~~In an~~ An optical recording medium having a recording layer to which information is recorded by using a laser with an oscillation wavelength of about 450 nm or shorter, -which comprises:

~~----- a substrate and a recording layer provided on said substrate by using an organic dye compound and which records information by irradiating said recording layer with a writing light at a writing light wavelength to act on said organic dye compound to form a pit on said substrate, the improvement wherein~~

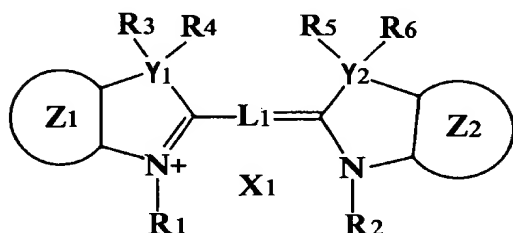
~~----- said organic dye compound has an absorption maximum at a wavelength longer than said writing light, and~~

~~----- said organic dye compound is used in combination with one or more members selected from the group consisting of nitroso compounds and metal complexes in an amount of 0.01 to 5 moles to one mole of said organic dye compound,~~

~~----- wherein said writing light wavelength is 660 nm or shorter~~ in said recording layer an organic dye compound which shows an absorption maximum at a wavelength longer than the oscillation wavelength of said laser but absorbs said laser in a level sufficient to record information in said recording layer.

2. (currently amended) The optical recording medium of claim 1, wherein said organic dye compound is represented by Formula 1;

Formula 1:



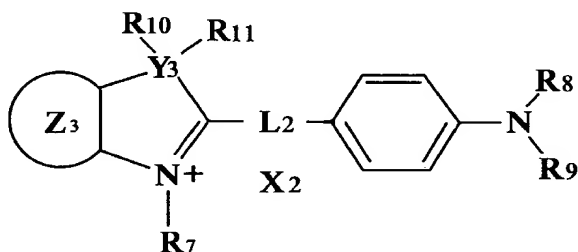
wherein in Formula 1, Z₁ and Z₂ denote the same or different optionally substituted aromatic rings; Y₁ and Y₂ independently denote carbon atoms or hetero atoms; R₁ and R₂ denote optionally substituted aliphatic hydrocarbon groups; R₃ to R₆ independently denote hydrogen atoms or compatible substituents, and when Y₁ and Y₂ are hetero atoms, the whole or a part of R₃ to R₆ does not exist; L₁ denotes a polymethine chain which may have a substituent and/or a cyclic group; and

X₁ denotes a compatible counter-ion selected from the group consisting of ~~nitric acid~~ nitrate ion, ~~phosphoric acid~~ phosphate ion, ~~perchloric acid~~ perchlorate ion, ~~periodic acid~~ periodate ion, ~~antimony hexafluoride~~ hexafluoroantimonate ion, ~~tin acid hexafluoride~~ hexafluorostannate ion, ~~fluoroboric acid~~ fluoroborate ion, ~~tetrafluoroboric acid~~ tetrafluoroborate ion, ~~thiocyanic acid~~ thiocyanate ion, ~~benzenesulfonic acid~~ benzenesulfonate ion, ~~naphthalenesulfonic acid~~ naphthalenesulfonate ion, ~~benzenecarboxylic acid~~ benzoate ion, ~~alkylcarboxylic acid~~ alkylcarbonate ion,

~~trihaloalkylcarboxylic acid~~ trihaloalkylcarbonate ion,
~~alkylsulfonic acid~~ alkylsulfonate ion, ~~trihaloalkylsulfonic acid~~
trihaloalkylsulfonate ion, ~~nicotinic acid~~ nicotinate ion,
trimethylammonium ion, and triethylammonium ion.

3. (Previously presented) The optical recording medium of claim 1, wherein said organic dye compound is represented by Formula 2;

Formula 2:



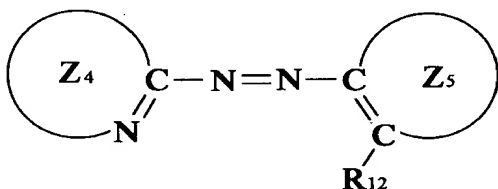
wherein in Formula 2, Z₃ denotes an optionally substituted aromatic ring; Y₃ denotes a carbon atom or a hetero atom; R₇ to R₉ denote the same or different optionally substituted aliphatic hydrocarbon groups; R₁₀ and R₁₁ independently denote hydrogen atoms or compatible substituents, and when Y₃ is a hetero atom, R₁₀ and/or R₁₁ do not exist; L₂ denotes a polymethine chain which may have a substituent and/or a cyclic group; and

X₂ denotes a compatible counter-ion selected from the group consisting of ~~nitric acid~~ nitrate ion, ~~phosphoric acid~~ phosphate ion, ~~perchloric acid~~ perchlorate ion, ~~periodic acid~~ periodate ion, ~~antimony hexafluoride~~ hexafluoroantimonate

ion, ~~tin acid hexafluoride hexafluorostannate~~ion, ~~fluoroboric acid ion~~, ~~tetrafluoroborate ion~~, ~~thiocyanic acid~~ thiocyanate ion, ~~benzenesulfonic acid~~ benzenesulfonate ion, ~~naphthalenesulfonic acid~~ naphthalenesulfonate ion, ~~benzenecarboxylic acid~~ benoate ion, ~~alkylcarboxylic acid~~ alkylcarbonate ion, ~~trihaloalkylcarboxylic acid~~ trihaloalkylcarbonate ion, ~~alkylsulfonic acid~~ alkylsulfonate ion, ~~trihaloalkylsulfonic acid~~ trihaloalkylsulfonate ion, ~~nicotinic acid~~ nicotinate ion, trimethylammonium ion, and triethylammonium ion.

4. (currently amended) The optical recording medium of claim 1, wherein said organic dye compound is a metal complex of an azo compound represented by Formula 3;

Formula 3:



wherein in Formula 3, Z_4 and Z_5 denote the same or different optionally substituted aromatic hydrocarbon groups or heterocycles; and R_{12} denotes an ~~acid base~~ acidic group.

5. (currently amended) The optical recording medium of claim 1, which uses a laser beam with a wavelength of ~~700 nm or less~~ around 405 nm as a writing light.

6. (canceled)

7. (Original) The optical recording medium of claim 1, which uses, in said recording layer, one or more other dye compounds sensitive to visible light and/or a compatible light-resistant improver(s) in combination.

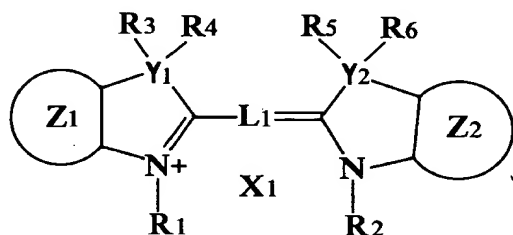
8. (currently amended) In an optical recording method to record information by using an optical recording medium comprising a substrate and a recording layer provided on said substrate by using an organic dye compound and irradiating said recording layer with a writing light to act on said organic dye compound to form a pit on said substrate, the improvement comprising

using, as a main organic dye compound for forming pits, an organic dye compound which has an absorption maximum with a wavelength less than 850 nm and substantially absorbs a writing light with a wavelength shorter than the absorption maximum of said organic dye compound, and

irradiating a recording layer on a substrate with the writing light to form a pit on said substrate,

wherein said writing light has a wavelength of 450 nm or shorter. ~~said organic dye compound is used in combination with one or more members selected from the group consisting of nitroso compounds and metal complexes in an amount of 0.01 to 5 moles to one mole of said organic dye compound.~~

9. (currently amended) The method of claim 8, wherein said organic dye compound is represented by Formula 1;
Formula 1:

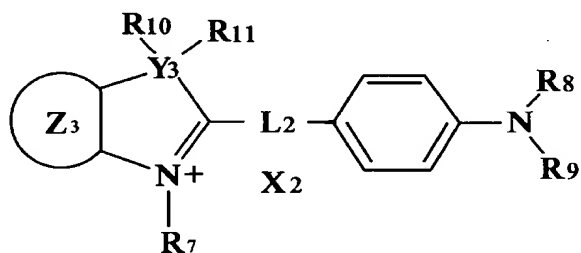


wherein in Formula 1, Z₁ and Z₂ denote the same or different optionally substituted aromatic rings; Y₁ and Y₂ independently denote carbon atoms or hetero atoms; R₁ and R₂ denote optionally substituted aliphatic hydrocarbon groups; R₃ to R₆ independently denote hydrogen atoms or compatible substituents, and when Y₁ and Y₂ are hetero atoms, the whole or a part of R₃ to R₆ does not exist; L₁ denotes a polymethine chain which may have a substituent and/or a cyclic group; and

X₁ denotes a compatible counter-ion selected from the group consisting of nitric acid nitrate ion, phosphoric acid phosphate ion, perchloric acid perchlorate ion, periodic acid periodate ion, antimony hexafluoride hexafluoroantimonate ion, tin acid hexafluoride hexafluorostannate ion, fluoroboric acid ion, tetrafluoroborate tetrafluoroborate ion, thiocyanic acid thiocyanate ion, benzenesulfonic acid benzenesulfonate ion, naphthalenesulfonic acid naphthalenesulfonate ion, benzenecarboxylic acid benzoate ion, alkylcarboxylic acid alkylcarbonate ion, trihaloalkylcarboxylic acid

trihaloalkylcarbonate ion, ~~alkylsulfonic acid~~ alkylsulfonate
ion, ~~trihaloalkylsulfonic acid~~ trihaloalkylsulfonate ion,
~~nicotinic acid~~ nicotinate ion, trimethylammonium ion, and
triethylammonium ion.

10. (currently amended) The method of claim 8,
wherein said organic dye compound is represented by Formula 2;
Formula 2:



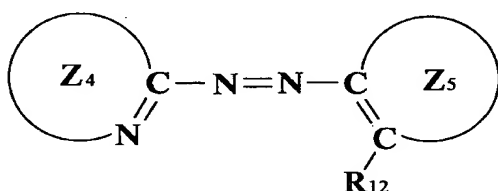
wherein in Formula 2, Z₃ denotes an optionally
substituted aromatic ring; Y₃ denotes a carbon atom or a hetero
atom; R₇ to R₉ denote the same or different optionally
substituted aliphatic hydrocarbon groups; R₁₀ and R₁₁
independently denote hydrogen atoms or compatible substituents,
and when Y₃ is a hetero atom, R₁₀ and/or R₁₁ do not exist; L₂
denotes a polymethine chain which may have a substituent and/or
a cyclic group; and

X₂ denotes a compatible counter-ion selected from the
group consisting of ~~nitric acid~~ nitrate ion, ~~phosphoric acid~~
phosphate ion, ~~perchloric acid~~ perchlorate ion, ~~periodic acid~~
periodate ion, ~~antimony hexafluoride~~ hexafluoroantimonate ion,
~~tin acid hexafluoride~~ hexafluorostannate ion, ~~fluoroboric acid~~

~~ion, tetrafluoroborate~~tetrafluoroborate ion, ~~thiocyanic~~
~~acid~~thiocyanate ion, ~~benzenesulfonic acid~~benzenesulfonate ion,
~~naphthalenesulfonic acid~~naphthalenesulfonate ion,
~~benzenecarboxylic acid~~benzoate ion, ~~alkylcarboxylic~~
~~acid~~alkylcarbonate ion, ~~trihaloalkylcarboxylic acid~~
trihaloalkylcarbonate ion, ~~alkylsulfonic acid~~alkylsulfonate
ion, ~~trihaloalkylsulfonic acid~~trihaloalkylsulfonate ion,
~~nicotinic acid~~nicotinate ion, trimethylammonium ion, and
triethylammonium ion.

11. (currently amended) The method of claim 8,
wherein said organic dye compound is a metal complex of an azo
compound represented by Formula 3;

Formula 3:



wherein in Formula 3, Z_4 and Z_5 denote the same or
different optionally substituted aromatic hydrocarbon groups or
heterocycles; and R_{12} denotes an ~~acid base~~acidic group.

12. (currently amended) The method of claim 8,
which uses a laser beam with a wavelength of ~~700 nm or less~~
around 405 nm as a writing light.

13. (canceled)

14. (Previously presented) The method of claim 8, which uses, in said recording layer, one or more other dye compounds sensitive to visible light and/or a compatible light-resistant improver(s) in combination.

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)